

CLAIMS

I claim:

1. A laminate structure comprising:
a base layer comprised of a flexible, substantially non-stretchable substrate having a first bonding side; and
a cling film layer bonded to the first bonding side of said base layer to form a laminate, said laminate having a peel strength of 1000g/inch or less and a shear strength greater than 4 hours.
2. The laminate of claim 1 wherein said base layer is selected from the group consisting of a nonwoven, and a thermoplastic film selected from the group consisting of polyolefins such as polyethylene, polypropylene and polybutylene, copolymers of ethylene and C₃-C₈ olefins, polyesters, polyamides such as nylon, polysulfones, acrylic polymers such as polyethylene methyl acrylic acid, polyethylene-n-butyl acrylate, polyethylene ethyl acrylate and polyethylene methyl acrylate, polystyrene, polyurethanes, polycarbonates, halogenated polymers such as polyvinylchloride and polyvinylidene chloride, cellulotics, polyacrylonitriles, and ionomers based on sodium or zinc salts of ethylene/methacrylic acid.
3. The laminate of claim 1 wherein said base layer is a nonwoven.
4. The laminate of claim 1 wherein said cling film layer includes a thermoplastic polymer coating selected from the group consisting of a polyolefin, an acrylic modified polyolefin, a vinyl acetate modified polyolefin, and an acrylic polymer.
5. The laminate of claim 4 wherein said acrylic modified polyolefin is a copolymer of a polyolefin and acrylic.
6. The laminate of claim 4 wherein said vinyl acetate modified polyolefin is a copolymer of a polyolefin and vinyl acetate.
7. The laminate of claim 4 wherein said polyolefin is polypropylene.
8. The laminate of claim 4 wherein said polyolefin is polyethylene.

9. The laminate of claim 1 wherein said laminate stretches less than about 50% from its original non-stretched configuration.

10. The laminate of claim 1 wherein said base layer is breathable.

11. The laminate of claim 1 wherein said cling film layer is breathable.

12. An absorbent article used to absorb and contain body exudates, the absorbent article comprising:

a top sheet;

a back sheet joined with at least a portion of the top sheet;

5 an absorbent core disposed between at least a portion of the top sheet and the back sheet; and

a fastening system for fastening the absorbent article in a usable position, said fastening system includes a laminate structure comprising a base layer having a flexible substantially non-stretchable substrate with a first bonding side, and a cling
10 film layer bonded to the first bonding side of said base layer to form said laminate structure, said laminate structure having a peel strength of 1000g/inch or less and a shear strength greater than 4 hours.

13. The absorbent article of claim 12, wherein said base layer is selected from the group consisting of a nonwoven, and a thermoplastic film selected from the group consisting of polyolefins such as polyethylene, polypropylene and polybutylene, copolymers of ethylene and C₃-C₈ olefins, polyesters, polyamides
5 such as nylon, polysulfones, acrylic polymers such as polyethylene methyl acrylic acid, polyethylene ethyl acrylate and polyethylene methyl acrylate, polystyrene, polyethylene-n-butyl acrylate, polyurethanes, polycarbonates, halogenated polymers such as polyvinylchloride and polyvinylidene chloride, cellulotics, polyacrylonitriles, and ionomers based on sodium or zinc salts of
10 ethylene/methacrylic acid.

14. The absorbent article of claim 12 wherein said base layer is a nonwoven.

15. The absorbent article of claim 12 wherein said cling film layer is a thermoplastic polymer coating selected from the group consisting of a polyolefin, an acrylic modified polyolefin, a vinyl acetate modified polyolefin, and an acrylic polymer.
16. The absorbent article of claim 15 wherein said acrylic modified polyolefin is a copolymer of a polyolefin and acrylic.
17. The absorbent article of claim 15 wherein said vinyl acetate modified polyolefin is a copolymer of a polyolefin and vinyl acetate.
18. The absorbent article of claim 15 wherein said polyolefin is polypropylene.
19. The absorbent article of claim 15 wherein said polyolefin is polyethylene.
20. The absorbent article of claim 12 wherein said laminate stretches less than about 50% from its original non-stretched configuration.
21. The absorbent article of claim 12 wherein said base layer is breathable.
22. The absorbent article of claim 12 wherein said cling film layer is breathable.
23. The absorbent article of claim 12 wherein said laminate structure is breathable.
24. The absorbent article of claim 12 wherein said base layer is pigmented.
25. The absorbent article of claim 12 wherein said cling film layer is pigmented.
26. The absorbent article of claim 12 wherein said laminate structure is pigmented.
27. The absorbent article of claim 12 wherein said fastening system is part of a disposable diaper.
28. The absorbent article of claim 27 wherein said disposable diaper has a first waist portion, a second waist portion, a crotch section located between the first

and second waist portions, and said fastening system is configured to join said first and second waist portions when the diaper is configured in said usable position.

29. The absorbent article of claim 28 wherein said laminate structure is selected from the group consisting of an ear and a tab on at least one of said waist portions.

30. The absorbent article of claim 29 wherein said laminate structure is bonded to said at least one waist portion.

31. The absorbent article of claim 29 wherein said laminate structure is integrally formed as part of the back sheet of said diaper.

32. The absorbent article of claim 28 wherein said disposable diaper further includes a landing zone, said landing zone comprised of said laminate structure.

33. The absorbent article of claim 28 wherein said disposable diaper further includes a landing zone, said landing zone comprised of said cling film layer.

34. The absorbent article of claim 12 wherein said fastening system is part of a feminine napkin.

35. The absorbent article of claim 34 wherein said feminine napkin includes a pair of wings extending laterally outwardly in opposite directions from the absorbent core, and said fastening system is configured to join said wings when the feminine napkin is configured in said usable position.

36. The absorbent article of claim 35 wherein said laminate structure is bonded to said wings.

37. The absorbent article of claim 35 wherein said laminate structure is integrally formed as part of the back sheet of said feminine napkin.

38. The absorbent article of claim 35 wherein said wings comprise said laminate structure.

39. A method of manufacturing an absorbent article having at least one fastening member for fastening said absorbent article in a usable position, comprising the steps of

selecting for said at least one fastening member a laminate structure, said
5 laminate structure comprising
a base layer comprised of a flexible, substantially non-stretchable substrate
having a first bonding side;
a cling film layer bonded to the first bonding side of said base layer to form a
laminate, said laminate having a peel strength of 1000g/inch or less and a shear
10 strength greater than 4 hours; and
applying said fastening member to the absorbent article.

40. The method of claim 39 wherein said base layer is selected from the
group consisting of a nonwoven, and a thermoplastic film selected from the group
consisting of polyolefins such a polyethylene, polypropylene and polybutylene,
copolymers of ethylene and C₃-C₈ olefins, polyesters, polyamides such as nylon,
5 polysulfones, acrylic polymers such as polyethylene methyl acrylic acid,
polyethylene-n-butyl acrylate, polyethylene ethyl acrylate and polyethylene methyl
acrylate, polystyrene, polyurethanes, polycarbonates, halogenated polymers such as
polyvinylchloride and polyvinylidene chloride, cellulotics, polyacrylonitriles, and
ionomers based on sodium or zinc salts of ethylene/methacrylic acid.

41. The method of claim 39 wherein said base layer is a nonwoven.

42. The method of claim 39 wherein said cling film layer is a
thermoplastic polymer coating selected from the group consisting of a polyolefin,
an acrylic modified polyolefin, a vinyl acetate modified polyolefin, and an acrylic
polymer.

43. The method of claim 42 wherein said acrylic modified polyolefin is a
copolymer of a polyolefin and acrylic.

44. The method of claim 42 wherein said vinyl acetate modified polyolefin
is a copolymer of a polyolefin and vinyl acetate.

45. The method of claim 42 wherein said polyolefin is polypropylene.

46. The method of claim 42 wherein said polyolefin is polyethylene.

47. The method of claim 39 wherein said laminate stretches less than about 50% from its original non-stretched configuration.

48. The method of claim 39 including the step of forming a landing zone on said absorbent article comprised of said laminate structure.

49. The method of claim 39 including the step of forming a landing zone on said absorbent article comprised of said cling film layer.

50. A method of manufacturing a laminate structure, including the steps of:

providing a base layer comprised of a flexible, substantially non-stretchable substrate having a first bonding side;

5 providing a cling film layer comprised of a thermoplastic polymer material that provides an autoadhesive surface; and

combining said base layer and cling film layer together to form a laminate.

51. The method of claim 50 wherein said base layer is selected from the group consisting of a nonwoven, and a thermoplastic film selected from the group consisting of polyolefins such as polyethylene, polypropylene and polybutylene, copolymers of ethylene and C₃-C₈ olefins, polyesters, polyamides such as nylon, polysulfones, acrylic polymers such as polyethylene methyl acrylic acid, 5 polyethylene-n-butyl acrylate, polyethylene ethyl acrylate and polyethylene methyl acrylate, polystyrene, polyurethanes, polycarbonates, halogenated polymers such as polyvinylchloride and polyvinylidene chloride, cellulotics, polyacrylonitriles, and ionomers based on sodium or zinc salts of ethylene/methacrylic acid.

52. The method of claim 50 wherein said base layer is a nonwoven.

53. The method of claim 50 wherein said cling film layer is a thermoplastic polymer coating selected from the group consisting of a polyolefin, an acrylic modified polyolefin, a vinyl acetate modified polyolefin, and an acrylic polymer.

54. The method of claim 53 wherein said acrylic modified polyolefin is a copolymer of a polyolefin and acrylic.

55. The method of claim 53 wherein said vinyl acetate modified polyolefin is a copolymer of a polyolefin and vinyl acetate.

56. The method of claim 53 wherein said polyolefin is polypropylene.

57. The method of claim 53 wherein said polyolefin is polyethylene.

58. The method of claim 50 wherein said laminate stretches less than about 50% from its original non-stretched configuration.

59. The method of claim 50 wherein the step of combining comprises extruding the cling film layer onto the bonding side of said base layer.

60. The method of claim 50 wherein said base layer is a nonwoven material, and the step of combining comprises melt blowing the nonwoven material onto the cling film layer.

61. The method of claim 50 wherein the step of combining comprises adhesively bonding the cling film layer to the bonding side of said base layer.

62. The method of claim 50 wherein the step of combining comprises thermally bonding the cling film layer to the bonding side of said base layer.

63. The method of claim 50 wherein the step of combining comprises ultrasonically bonding the cling film layer to the bonding side of said base layer.

64. The method of claim 50 wherein the step of combining comprises RF bonding the cling film layer to the bonding side of said base layer.

65. The method of claim 50 wherein the step of combining comprises microwave bonding the cling film layer to the bonding side of said base layer.

66. The method of claim 50 wherein the step of combining comprises pressure bonding the cling film layer to the bonding side of said base layer.